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DATE: January 12, 2006

NAME: T. McCafferty

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Siracki et al
Serial No:	10/825,019
Filing Date:	April 15, 2004
Title:	POWER DISTRIBUTION BLOCK ASSEMBLY
Group Art Unit:	2839
Examiner:	Javaid Nasri
Applicant File No:	ERIC.P0348US

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Introduction

This Appeal Brief is submitted in triplicate in connection with the final rejection of claims 1 and 11-25 drawn to a terminal block for electric distribution (claims 11-21), and a method of distributing power from a block to a plurality of tap connections (claims 22-25).

I. Real Party in Interest

The real party in interest is ERICO International Corporation, the assignee and owner of this application.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 2-10 are indicated allowable if claim 2 is written in independent form. The claims on Appeal are set forth in **Appendix A** and include the amendment to claim 21 addressed below. Allowable claims 2-10 are not included.

IV. Status of Amendments

There are no pending amendments. A request for reconsideration, including an amendment to claim 21 was filed after final rejection but resulted in only an advisory action setting forth in three paragraphs responses to applicant's comments.

The advisory action does not indicate the amendment to claim 21 will be entered, but it is assumed it will be since it addressed a claim objection.

V. Summary of Invention Defined in the Claims on Appeal

Electrical distribution blocks are widely employed for distributing incoming electrical power to a number of distinct circuits. Typically the block includes a connection for a larger conductor, cable, or bus, and a plurality of tap connections for smaller conductors. Such conductors are inserted in ports

or holes and held in place by a binding screw (see the first two paragraphs on page 1 of the Specification under the heading **Background of the Invention**).

The metal terminal block 21 is shown in detail in Figures 2 through 6 and is made of conductive metal such as aluminum alloy. The block includes a large socket 46 which extends through the interior wall of the enlarged end 45. Situated in a reduced height portion 54 of the block are three tap sockets or ports 60. Projecting from the reduced height portion 56 is another offset tier of tap ports or sockets shown at 70. The intermediate tier includes four side-by-side sockets or ports for tap connections indicated at 74, while the top tier includes four side-by-side sockets or ports 75. As indicated in Figure 3 the block has the one large main port, and a total of eleven smaller or tap ports for the distribution of power.

As illustrated in Figures 4, 5 and 6 each of the sockets includes an inner inverted conical abutment wall as seen at 80 for the top tier, and 81 for the intermediate tier, and 83 for the lower most tier. These abutment walls open to sight windows such as seen at 85 and 86, and in this manner each of the tap sockets is provided with an internal abutment wall, and also a sight window enabling the tip of the conductor to be seen from the top of the assembly through the transparent cover 23 (page 7, lines 7-21). Figure 6 illustrates the conductors inserted to engage the abutment walls and expose the tips at the sight windows.

The block is enclosed by insulation case 22 and includes a cover made of plastic transparent material which may be tinted a color such as blue, but which is nonetheless fully transparent (page 5, lines 13-18).

The advantages of applicant's assembly of the case, cover, and block are several fold. As is common practice with a series of smaller tap connections, many are made at a later date and normally to do so safely the main power is

turned off. This alone creates problems, especially if the preexisting connections are vital.

With multiple tap connections the interior of the block inside the case can become visually complex and it is easy to make a non-uniform connection or a connection that simply won't work, and failure of the connection may not become apparent until after power is restored. The installer also shouldn't have to remove insulation from the conductor at varying lengths to make a good connection. The connections should be made uniformly with the same length of insulation removed, and the conductor should be inserted far enough to place a bare extent of the conductor under the binding or clamp screw, but not so far that the clamp screw comes down on insulation.

Applicants invention provides a method of distributing power to a plurality of tap connections in a finger safe manner after the block is energized with a main connection, while adding one or all tap connections uniformly with the case closed, while preventing finger contact with the block. The combination of the visual and physical check, all while the case is closed, ensures that all of the tap connections will be both uniform and electrically correct, each with the proper uniform extent of the conductor extending beneath and beyond the clamp screw, and all without opening the case or turning off the power (page 8, line 16).

VI. Issues

Issue 1

Whether claims 1, and 11-21 are anticipated by Beadle, U.S. Patent 6,497,592 under 35 U.S.C. §102(b).

Issue 2

Whether claims 22-25 are unpatentable over Beadle, U.S. Patent 6,497,592 under 35 U.S.C. §103(a).

VII. Grouping of Claims

Claims 15-18 may be grouped with claim 14 for purposes of this Appeal only. The other claims are believed patentably distinct from each other and the prior art as set forth below.

VIII. Argument

Issue 1

An anticipation requires that the prior art reference must either expressly or inherently disclose each and every limitation in a claim. *Verdegaal Bros. v. Union Oil Co.*, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987); *In re Paulsen*, 31 USPQ 2d 1671, 1673 (Fed. Cir. 1994). The reference must also be enabling such that it puts the invention in the hands of one skilled in the art. *In re Sun*, 31 USPQ 2d 1451, 1453 (Fed. Cir. 1993) (unpub.); *In re Spada*, 15 USPQ 2d 1655, 1657 (Fed. Cir. 1991). Not only is all of the structure required, but also

each statement of function. *In re Weiss*, 26 USPQ 2d 1885, 1888 (Fed. Cir. 1993), which cites two CCPA cases to this effect:

> The limitations which must be met by an anticipatory reference are those set forth in each statement of function. *RCA*, 730 F.2d at 1445 N.5, 221 USPQ at 389 n.5 (citing *In re Mott*, 557 F.2d 266, 194 USPQ 305, 307 (CCPA 1977)).

The Board is also invited to review Section 2131 of MPEP, entitled "ANTICIPATION--APPLICATION OF 35 U.S.C. 102(a), (b) and (e)."

Annexed hereto as **Appendix B** is a copy of Appealed claims 1 and 11-21, with those portions of the claims finding no counterpart or correspondence with the Beadle reference highlighted.

First of all it should be noted that Beadle is not a distribution block which has one tap in and multiple taps out. It is rather a series of separate blocks separated by insulation ribs or partitions 20 (col. 1, line 65). This is true even in the dogleg embodiment of Figures 12 and 13 referred to by the Examiner. Each block has but one tap in and but one tap out.

Beadle shows neither a transparent cover or transparent window providing visual access to respective ports (claim 1) or a conductive block having a main power connection and smaller tap connections, each connection comprising a socket with a blocking abutment at the inner end (claim 11), to ensure proper insertion and to prevent over insertion.

Since Beadle does not anticipate the parent claims 1 and 11, there is really no need to discuss dependent claims, but many of those claims also recite features not shown in Beadle. Reference may be had to **Appendix B**.

With reference to claim 1, Beadle certainly recognizes the problem. At Col. 2, lines 21-25, Beadle indicates:

> "..., making clear visual confirmation of the connection difficult. Most terminal connections are of a blind type which do no (sic) allow the installer to visually confirm the connection by seeing the conductors pass under the set screws."

And at the end of the column Beadle recites as an advantage that the connector "...provides means for visual confirmation of a connection."

The issue then is how does Beadle accomplish this. It is believed apparent from the Beadle disclosure that Beadle does this with the hinged cover 16 open and by avoiding any sort of blind hole, or even a step or abutment to form a seating socket at a window in the back of the hole.

For example, at Column 5, line 55, Beadle indicates:

> " Generally, during installation, hinged cover 16 will be lifted or completely removed, allowing the installer ready access to all terminal blocks 22 to ensure secure connections. After installation, the installer will close and attach the hinged cover 16 to restrict access to the terminal blocks 22 and, thus, live connections. As shown, holes 46 in hinged cover 16 overlie only the stepped-down voltage connections 62, preventing access entirely to the higher input voltage and, thus, eliminating the most significant safety hazard."

In connection with the above, the cover above the higher input voltage blocks does not have any holes 46. The holes 46 are for the stepped down voltage blocks only.

The hinged cover is open or removed during installation.

In Beadle, each individual block is separated by the insulators and each is provided with a through-bore 38. At Col. 6, line 27, Beadle indicates:

> "Bore 38 extends horizontally through the body of the block, exiting from the rear face, allowing the user to readily visually confirm complete insertion and proper contact for all wires to be connected in the terminal block."

It should also be noted that Beadle cautions against the risk of missing or bending a few wires (Col. 6, line 33). This is of course consistent with Beadle avoiding any stop or abutment at the non-existent end or seat of a through-hole in the individual blocks. The only thing that would stop or bend the wires is the back wall of the terminal block retainer, seen, for example, in Figures 3 and 7. Even the head 28 of the fastener is clear of the through-hole 38.

It is also apparent that the increased spacing of the main body of each individual block from the back wall of the terminal block retainer is to permit visual access when the cover is open or removed. However, that spacing and the through-hole doesn't ensure that the set screw won't come down on insulation since the blocks contain no gauge stop. The proper positioning of the wire end is still partly by guess and may involve the removal of excess insulation.

Although it is sectioned as metal, the terminal block retainer 14 is described as being made of molded plastic or polymer and it may be assumed that the unnumbered back wall is made of the same material, but Beadle also describes his transformer box as made of stainless steel (Col. 5, line 28).

Perhaps Figure 3 of Beadle shows the retainer best as separate and apart from the two port (connection) block, but Figure 3 also shows the bare conductor end(s) in the through-hole of the block, and it is readily apparent that if the conductor ends were inserted so far as to engage the back wall of the retainer, the binding screw would come down on insulation.

Reproduced below is Figure 3 of the Beadle reference with the view on the left as it appears in the patent, and the view on the right with the phantom line conductors simply inserted so the tips engage the back wall of retainer 14. The bare conductor and insulation have been labeled. The right hand figure produces an inoperative connection. But this isn't about to happen since the cover of Beadle isn't transparent and the connection is made with the cover open. It also is apparent that the back wall of the retainer isn't formed in the conductive block or a part thereof, again referring to the claims.

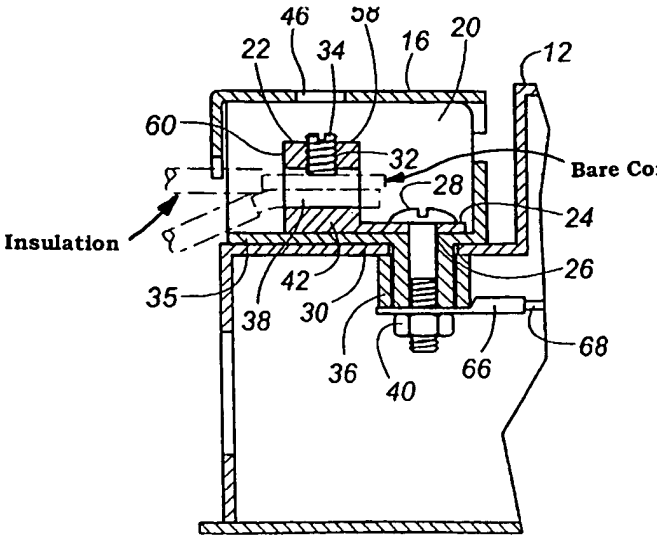


FIG. 3

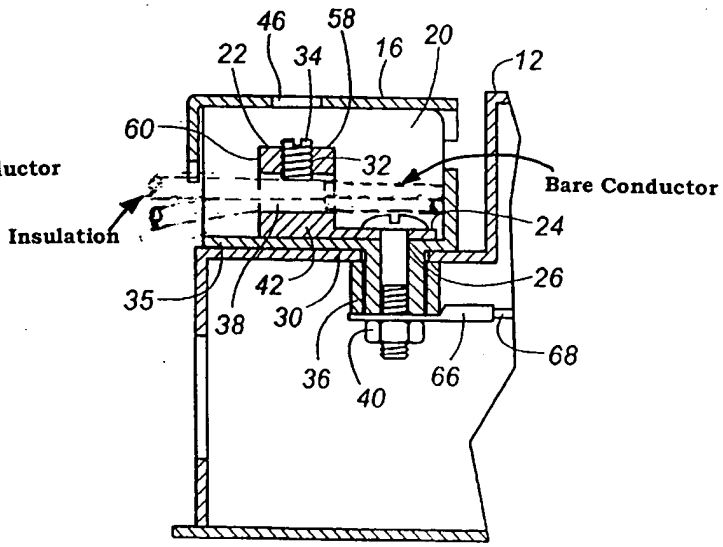


FIG. 3

A hole of course, isn't something of substance and cannot have structural or functional correspondence to something of substance, namely a transparent cover, or a cover with a transparent window. The holes in the cover of Beadle are mostly blocked by a set screw or a tool for turning that screw. One can only imagine trying to peek through a partially blocked hole in an opaque cover, especially with the box mounted in a service cabinet or closet on the side of a building or garage (col.1, line 65 to col. 2, line 1). Even a flashlight wouldn't help. The access holes normally blocked by what they are intended to accommodate are not a transparent cover, nor do they make an opaque cover transparent. Nor is there any teaching in Beadle of a gauge stop or abutment in the block.

Most notably, it is the exact situation Beadle describes as a segue to his "making clear visual confirmation of the connection difficult,", quoted above, which the Examiner now says is an anticipation of applicant's solution to the problem. Beadle readily acknowledges that an opaque cover with screw holes mounted in obscure, often dark locations is the problem. This is exactly what Beadle describes as "...making clear visual confirmation of the connection difficult." (see the entire sentence beginning at col. 2, line 18).

Obviously, a one tap in, one tap out block isn't a block with a main power connection and smaller tap connections, nor is a through-hole, or through-bore a socket in a block with a blocking abutment at the inner end, to ensure proper insertion, and protect against over insertion.

Also, it is believed apparent that the individual blocks of Beadle don't have a sight opening at the missing blocking abutment.

Going on to claims 12-14 as indicated above, Beadle does not have a transparent window. Even the dogleg version of Beadle does not provide offset rows with the lower end of the sockets of at least one row partially blocked by the adjoining row.

Nor does the non-existent partially blocking wall have the configuration of claim 21.

It should be noted that the Examiners arguments set forth in the Advisory Action seem to indicate a stubborn adherence to a position not warranted by the claim language.

For example, in paragraph (a) the Examiner now indicates that the application of Beadle is justified because the claim doesn't say all the ports are connected and have the same power. Such a recitation would be redundant to a block having a main port for a main power conductor and a series of tap ports for distribution of power. A series is plural.

The same nose of wax approach to the claim language is evidenced by the Examiner's position in paragraphs (b) and (c) of the Advisory Action.

The cover of Beadle isn't transparent and the one-port-in-one-port-out blocks of Beadle don't have seating abutments but rather through holes. The back wall of the retainer is not part of the block.

Beadle isn't even close to the claims rejected as an anticipation.

Issue 2

In the Final Rejection the Examiner readily admits that "Beadle does not describe the method as claimed". However the Examiner goes on to indicate the claimed method language is counterpart of the apparatus claimed, and therefore obvious over Beadle.

The Examiner cites no authority or statutory language for this odd counterpart conclusion.

The only authority cited by the Examiner is the reference to *In re Morris* in the advisory action and there the key word ignored is reasonable.

An unreasonable application of a reference as an anticipation brought on by an unreasonable interpretation of, or total ignoring of claim language, does not make a method not disclosed by a reference obvious. The Examiners rejection of the method claims lacks reasonableness, logic, or any authority whatsoever.

The Examiners efforts to make Beadle fit applicants block assembly claims, and the alleged counterpart extension to the method claims, admittedly not described in Beadle, reminds one of a conversation between Humpty Dumpty and Alice in *Through the Looking Glass*:

> "When I use a word," Humpty Dumpty said in a rather scornful tone, "it means just what I choose it to mean - neither more or less."
>
> "The question is," said Alice, "whether you can make words mean so many different things."
>
> "The question is," said Humpty Dumpty, "which is to be master - that's all."

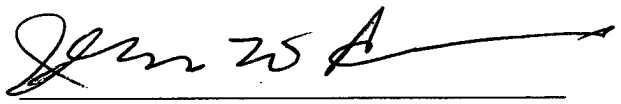
If Beadle isn't even close as an anticipation of applicant's block claims and doesn't describe the method as the Examiner indicates (admits), then the method steps of the claims, like the block claims, are not there. Beadle simply does not show or suggest a method of distributing power from an electrical distribution block to a plurality of tap connections. Beadle's one-in and one-out blocks simply don't fit, nor does Beadle energize the block with a main connection, and then add one or all tap connections with the case closed.

Conclusion

Claims 1 and 11-21 are not anticipated by Beadle, nor are claims 22-25 obvious in view of Beadle.

A reversal of the Examiners rejections is respectfully requested.

Respectfully submitted,
RENNER, OTTO, BOISSELLE & SKLAR



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APPENDIX A

1. A terminal block for electric distribution comprising a main port for a main power conductor and a series of tap ports for distribution of power, the main and tap ports comprising seating sockets with transversely extending clamp screws adapted to secure conductors seated in the sockets, an insulating case for said block having a transparent cover providing visual access to the tip of said conductors, respective ports in said case for inserting conductors fully seated in said respective ports, and ports in said cover providing access to said clamp screws whereby conductors may be inserted fully seated in said ports and secured with said clamp screws without contact with the block.

11. An electric distribution terminal block comprising a conductive block having a main power connection in one side and smaller tap connections in another side, each connection comprising a socket to receive the conductor with a blocking abutment at the inner end to ensure proper insertion and to prevent over insertion, and a transverse clamp screw to secure the conductor in the socket when tightened, and an opening at the abutment end of each socket to provide visual access to the end of the conductor when inserted properly against the abutment in the socket.

12. An electric distribution terminal block as set forth in claim 11 including an insulating case for said block, and a transparent window in said case to provide the installer such visual access from outside the case.

13. An electric distribution block as set forth in claim 12 wherein said transparent window is opposite the openings at the abutment end of each socket.

14. An electric distribution block as set forth in claim 13 wherein said transparent window is the top of the case.

15. An electric distribution block as set forth in claim 14 wherein said top may be hinged to the case.

16. An electric distribution block as set forth in claim 15 including respective ports in said top of said case providing limited access to the respective clamp screws.

17. An electric distribution block as set forth in claim 16 including additional respective ports in said insulating case to enable bare conductor ends to be inserted into the respective socket against the abutment.

18. An electric distribution block as set forth in claim 17 including alignment galleries in said case to facilitate the insertion of said bare conductor ends into said sockets.

19. An electric distribution block as set forth in claim 16 wherein said sockets are arranged in offset rows with the inner end of the sockets of at least one row being partially blocked by the adjoining row.

20. An electric distribution block as set forth in claim 16 including a wall of the block partially blocking the inner end of each socket to prevent over insertion of the ends of the conductors.

21. An electric distribution block as set forth in claim 20 wherein the blocking wall of each socket is formed with a generally inverted conical surface.

22. A method of distributing power from an electrical distribution block to a plurality of tap connections comprising the steps of enclosing the block in an insulating case, energizing the block with a main connection and then adding one or all tap connections uniformly with the case_closed while preventing finger contact with the block.

23. A method as set forth in claim 22 including the step of providing an abutment for correct positioning of each tap connection.

24. A method as set forth in claim 22 including the step of providing a visual check for correct positioning of each tap connection.

25. A method as set forth in claim 22 including the step of providing both an abutment and a visual check for the correct positioning of each tap connection.

APPENDIX B

1. A terminal block for electric distribution comprising a main port for a main power conductor and a series of tap ports for distribution of power, the main and tap ports comprising seating sockets with transversely extending clamp screws adapted to secure conductors seated in the sockets, an insulating case for said block having a transparent cover providing visual access to the tip of said conductors, respective ports in said case for inserting conductors fully seated in said respective ports, and ports in said cover providing access to said clamp screws whereby conductors may be inserted fully seated in said ports and secured with said clamp screws without contact with the block.

11. An electric distribution terminal block comprising a conductive block having a main power connection in one side and smaller tap connections in another side, each connection comprising a socket to receive the conductor with a blocking abutment at the inner end to ensure proper insertion and to prevent over insertion, and a transverse clamp screw to secure the conductor in the socket when tightened, and an opening at the abutment end of each socket to provide visual access to the end of the conductor when inserted properly against the abutment in the socket.

12. An electric distribution terminal block as set forth in claim 11 including an insulating case for said block, and a transparent window in said case to provide the installer such visual access from outside the case.

13. An electric distribution block as set forth in claim 12 wherein said transparent window is opposite the openings at the abutment end of each socket.

14. An electric distribution block as set forth in claim 13 wherein said transparent window is the top of the case.

15. An electric distribution block as set forth in claim 14 wherein said top may be hinged to the case.

16. An electric distribution block as set forth in claim 15 including respective ports in said top of said case providing limited access to the respective clamp screws.

17. An electric distribution block as set forth in claim 16 including additional respective ports in said insulating case to enable bare conductor ends to be inserted into the respective socket against the abutment.

18. An electric distribution block as set forth in claim 17 including alignment galleries in said case to facilitate the insertion of said bare conductor ends into said sockets.

19. An electric distribution block as set forth in claim 16 wherein said sockets are arranged in offset rows with the inner end of the sockets of at least one row being partially blocked by the adjoining row.

20. An electric distribution block as set forth in claim 16 including a wall of the block partially blocking the inner end of each socket to prevent over insertion of the ends of the conductors.

21. An electric distribution block as set forth in claim 20 wherein the blocking wall of each socket is formed with a generally inverted conical surface.